

## Aspects of the CPD session on EduAI – 7<sup>th</sup> January 2022

Three files were covered during this session, namely:

- a) The day the crayons quit.
- b) Who am I?
- c) Three adjectives

In (a) **The day the crayons quit**, there were 6 questions to be covered.

**Question 1** is an introduction to the book 'The Day the Crayons Quit' by Drew Daywalt.

**Question 2** is a question about what the red crayon did. Through **speech recognition** the students answer the question presented. The students are then asked to move a robot on a screen maze using **voice commands** until it reaches a predetermined destination. To complement this action, the students have to move the **Mini Robot Car** on a full scale maze controlled by two **BBC MicroBits**. This procedure is repeated for all the remaining items 3 - 6 on different mazes.

To continue with the program the students need to solve a simple clue found in a corresponding box on the maze. The student then needs to key-in the answer found to continue.

If the speech recognition result is correct an image of the object mentioned is displayed or else the students can re-try to give another answer. The correct answer is given after two incorrect tries.

**Question 3** is based on the what the grey crayon did. The use of speech recognition, voice commands and the control of the Mini Robot car are reinforced throughout this lesson.

**Questions 4 – 6** continue as in the previous two questions where the student responds to the questions presented using AI tools and motor-skills to control the mentioned Mini Robot Car. All the questions are presented in colourful and appealing manner to motivate the students towards better speaking skills in the English language.

### (b) **Who am I?**

The students are here presented with six clues to identify each crayon in question.

Aspects of speech recognition and motor skills are retraced in this program. The student is offered a form of comprehension exercise but using AI techniques to complete.

**(c) Three adjectives**

This program emphasises the use of adjectives, vocabulary and sentence building. The use of speech recognition, text to speech and text inputting are the main aspects of the following questions.

**Question 1** – the students are required to describe one of the six images presented with three adjectives. The students need to input each adjective using the keyboard. A word bank of adjectives may be used by the student as an aid, but the adjective still has to be inserted in the program using the keyboard. Using text to speech, each adjective is then listed and played by the program.

When the three adjectives are entered, the whole sentence is then rendered on screen and spoken. The student can repeat this question for the remaining five items.

**Question 2** – the students are present with fifteen different sentences randomly chosen. The students need to identify the adjective in the sentence using speech recognition. If the answer is correct the adjective is then highlighted. The students have two chances to identify the adjective or else the correct adjective is given and highlighted. The students may opt to repeat this question by clicking button 2 again.

**Question 3 – 5** are open ended questions based on the book ‘The Day the Crayons Quit’ where the students are asked to reply on what the boy Duncan was thinking about his crayons. Speech recognition is the input method used to reply to these three questions. Each answer is then rendered on screen while the sentence is also spoken. The enrichment of the student’s vocabulary is being supported in these three questions.

**Question 6** – The student is here asked to write a simple letter to a crayon of one’s choice. Phrases from the letter are inputted by the student using the keyboard. Text to speech is then used to render the letter on screen.

**Question 7 - 9** – are opened ended questions using speech recognition techniques to complete.

The vocabulary used and the ability to remember various parts of the book are aspects used in these questions.

**Albert Pace, Miriam Schembri, Charles Mifsud, David Muscat**